



VOLUNTEERS FOR MEDICAL ENGINEERING (VME)

The U.S. Army Soldier and Biological Chemical Command's (SBCCOM) VME Team is composed of members from SBCCOM and the Center for Health Promotion and Preventive Medicine workforce. Organizations the team has worked with and have provided services to include Harford County School System, The ARC of the Northern Chesapeake Region, Harford County Commission on Disabilities, and the Maryland Chapter of NMSS (National Multiple Sclerosis Society).

VME was founded by Mr. John Staehlin, P.E., an engineer working for Westinghouse Electronics in Linthicum, MD, around 1978. VME's mission is to *improve the independence of individuals with disabilities through the use of innovative engineering*. VME is not intended to compete with private industries that create medical assistive devices in the commercial marketplace. VME focuses on "one of a kind" devices that can be designed and built specifically for the disabled or elderly, which, for whatever the reason (cost, uniqueness, etc.) are not available to clients from commercial sources.

By 1982, volunteers from Westinghouse and other defense contractor volunteers were performing research, inventing solutions to individual challenges, and serving the needs of individuals with disabilities throughout Maryland.

SBCCOM initiated their program in December 1998 when 35 Employees attended an orientation by Ms. Jan Hoffberger, the Executive Director of VME. This initial training was a requirement of VME for volunteers so that they are covered under VME's liability insurance policy.

Members of SBCCOM and the Edgewood Area of Aberdeen Proving Ground community are encouraged both to participate as volunteers and to refer potential clients to the VME Team. Volunteering to participate in VME projects gives team members an opportunity to "give back" to those with disabilities and the elderly.

Many SBCCOM volunteers work for the Computer-Aided Engineering (CAE) Team within the Engineering Directorate of SBCCOM's Edgewood Chemical Biological Center. Consequently, the CAE Team is the focus of most SBCCOM VME projects.

Team members design and make innovative medical and assistive devices on their own time. The Commander of SBCCOM has granted permission to the

team to operate at Edgewood. Operation is done under a strict operating permit/agreement with Aberdeen Proving Ground.

At an orientation held on December 12, 2000, 18 volunteers signed up to participate during 2001.

As of October 31, 2000, the team completed and delivered nine projects to clients.

- Designed and made a wheelchair backpack to allow handicapped high school student easy access to her school materials. Backpack is a front-mounted tray that tilts up to open for easy access for the student. A simple touch of a button activates the backpack mechanism.

- Modified a wheelchair footrest for a client. In the course of negotiating turns in confined areas, client frequently bumps the footrest (particularly the right footrest). This results in the footrest becoming canted inward, which is uncomfortable for him because his foot tends to slide off the rest. Footrest support was modified to improve durability.

- Designed and made a paper shredder shield for retarded client to lessen the fear of fingers entering shredder.

- Designed and made pot/pan fences for burner on stove to allow one-handed cooking by disabled client. There were actually two rings made: a large one for two larger skillets and a smaller one for her small skillet.

- Reinforced the bottom of an office chair for a client suffering with Parkinson's disease.

- Designed a board for use in transferring a disabled or elderly person from a wheel chair to other furniture

- Designed and made magnetic hand couplings for a partial paraplegic client. Couplings are part of a wheelchair drive sprocket on a wheelchair bicycle. Client was unable to grip the drive sprocket. The team modified a pair of roller blade gloves by attaching magnets. Client can now ride bike while hands are secured to sprocket using the magnetic couplings.

- Designed and made custom-made transfer boards for a wheelchair bound client.

- Adjusted and made custom handles for a walker for a child with cerebral palsy.

On Sunday evening, November 5, 2000, SBCCOM's VME Team received the VME Team of the Year award at the annual awards banquet, which was held in the Fire Museum of Maryland. Ms. Jan Hoffberger, VME Executive Director, presented the award to Mr. Mark Schlein, technical representative, and Mr. Bob Coen, client advocate, representing the SBCCOM VME Team.



The SBCCOM VME Team is currently seeking individuals interested in participating in team activities in 2001. A new member orientation is scheduled for February 2, 2001, at 4:00 p.m. The team is looking for anyone who wants a chance to demonstrate his or her ability to manage a project from start to finish and demonstrates a "can do" attitude. Many times, in the normal course of project work an individual never gets the opportunity to take the lead on a project and see it through from start to finish. Here is the chance to demonstrate those hidden skills like persuasiveness, innovation, and emotional intelligence.

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